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| Surname | Centre Number | Candidate Number |
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GCSE – NEW



C112U10-1



GEOGRAPHY B – Component 1
Investigating Geographical Issues

TUESDAY, 22 MAY 2018 – AFTERNOON

1 hour 45 minutes

| For Examiner's use only | | |
|-------------------------|--------------|--------------|
| Question | Maximum Mark | Mark Awarded |
| 1 | 32 | |
| SPaG | 4 | |
| 2 | 32 | |
| 3 | 32 | |
| Total | 100 | |

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01

ADDITIONAL MATERIALS

In addition to this paper you may use a calculator and a ruler if required.

INSTRUCTIONS TO CANDIDATES

Answer **all** of the questions in this examination paper.

Use black ink or black ball-point pen. Do not use gel pen. Do not use correction fluid.

Write your name, centre number and candidate number in the spaces at the top of this page.

Write your answers in the spaces provided in this booklet.

If additional space is required you should use the lined page(s) at the end of this booklet. The question number(s) should be clearly shown.

INFORMATION FOR CANDIDATES

The number of marks is given in brackets [] at the end of each question or part-question.

You are reminded that assessment will take into account your ability to spell, punctuate and use grammar and specialist terminology accurately in your answer to question 1(e).



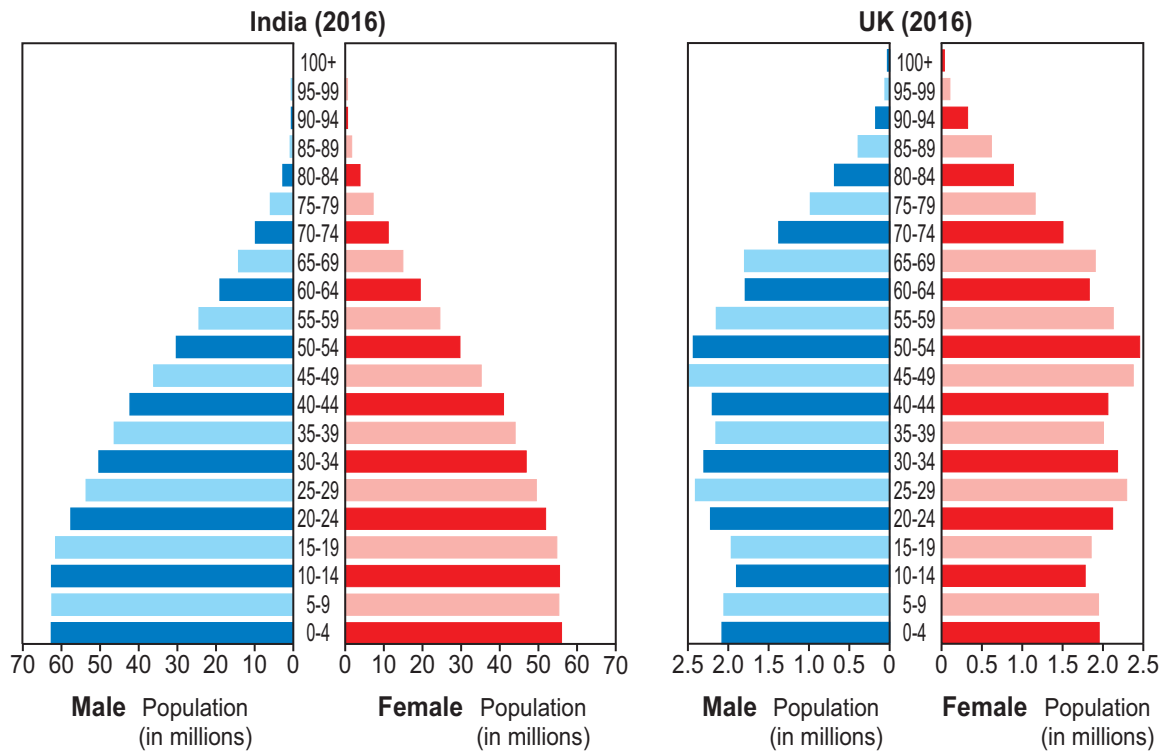
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Theme 1: Changing Places – Changing Economies

Answer all questions.

1. (a) Study Figure 1.1.

Figure 1.1 – Population pyramids (2016)



- (i) India is an example of a NIC. What does NIC stand for?
Tick (✓) **one** of the definitions below.

[1]

| | Tick (✓) |
|------------------------------|----------|
| Newly industrialised company | |
| Newly industrialised country | |
| Non-industrialised country | |



- (ii) The table below contains six statements about Figure 1.1. Only three are correct. Tick (✓) the **three** correct statements. [3]

| | Tick (✓) three |
|--|----------------|
| Children aged 0-14 form the largest age groups in both India and the UK. | |
| India has more females than males in the 10-14 age group. | |
| The UK has more females than males aged 75 and over. | |
| The UK has a greater proportion of its population aged over 70 than India. | |
| There are 63 million people aged 0-4 in India. | |
| There are approximately 4 million people aged 0-4 in the UK. | |



- (b) Study Figure 1.2 below.
Adult literacy is the percentage of adults who can read and write.

Figure 1.2 – Changes in Adult Literacy Rates in India, 1981-2016

| | 1981 | 2016 |
|---------------------------|-------------|-------------|
| Adult male literacy (%) | 55 | 81 |
| Adult female literacy (%) | 26 | 63 |
| Difference | | 18 |

- (i) Calculate the difference between male and female literacy in 1981. [1]

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- (ii) What has happened to the difference between male and female literacy? [1]

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- (iii) Give **one** reason why improving adult literacy rates would benefit countries like India. [2]

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- (iv) Give **one** economic indicator that is used to measure a country's level of development. [1]

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- (c) (i) Describe the pattern of imports and exports of **one** NIC you have studied. [4]

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- (ii) Explain why the UK needs to import and export goods. [6]

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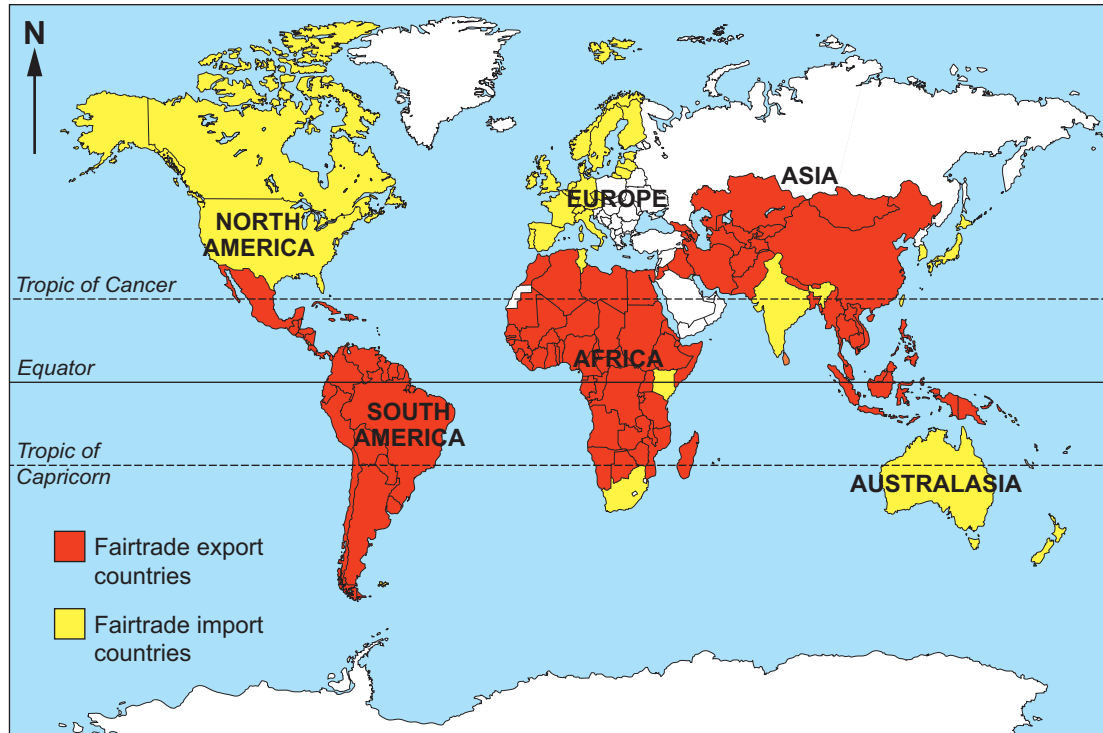
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(d) Study Figure 1.3.

Figure 1.3 – Countries that export and import Fairtrade goods



- (i) Describe the pattern of Fairtrade export countries and Fairtrade import countries. Use evidence from Figure 1.3 only. [3]

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- (ii) Give **two** features of Fairtrade. [2]

1.

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2.

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(e) Study Figures 1.4, 1.5 and 1.6. They show examples of different types of aid.

Figure 1.4 – Emergency aid sent by the UK after Typhoon Haiyan hit the Philippines in 2013

What emergency aid did the UK send?

- Emergency shelter for 245,000 people
- Safe drinking water for 650,000 people
- Food for over 325,000 people
- Blankets and cooking provisions for 78,000 people
- 20,912 shelter kits
- 100,000 kg rice
- 3,374 tents
- 23,164 buckets.



Figure 1.5 – Development aid, a water project in Malawi, Africa



Figure 1.6 – Development aid, an education project in Uruguay, South America



'Long-term development aid is more effective than short-term emergency aid.'

Use the information in Figures 1.4 to 1.6 to help you decide how far you agree with this statement. Justify your decision. [8]

Your ability to spell, punctuate and use grammar and specialist terminology accurately will be assessed in your answer to this question. [4]



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End of Question 1



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Theme 2: Changing Environments*Answer all questions.***2.** (a) Rivers erode by a number of different processes.

(i) Read the 'heads and tails' definitions below.

Heads – Terms

| | |
|---|------------------|
| A | Hydraulic action |
| B | Attrition |
| C | Abrasion |
| D | Solution |

Tails – Definitions

| | |
|---|---|
| 1 | Some rocks, such as limestone, dissolve. |
| 2 | Fast-flowing water is forced into cracks in the bed and banks of the river. |
| 3 | Sand and pebbles are picked up and scrape against the bed and banks of the river. |
| 4 | Rocks and stone hit against each other, breaking them into smaller pieces. |

Add the **number** of the correct tail to the boxes below.

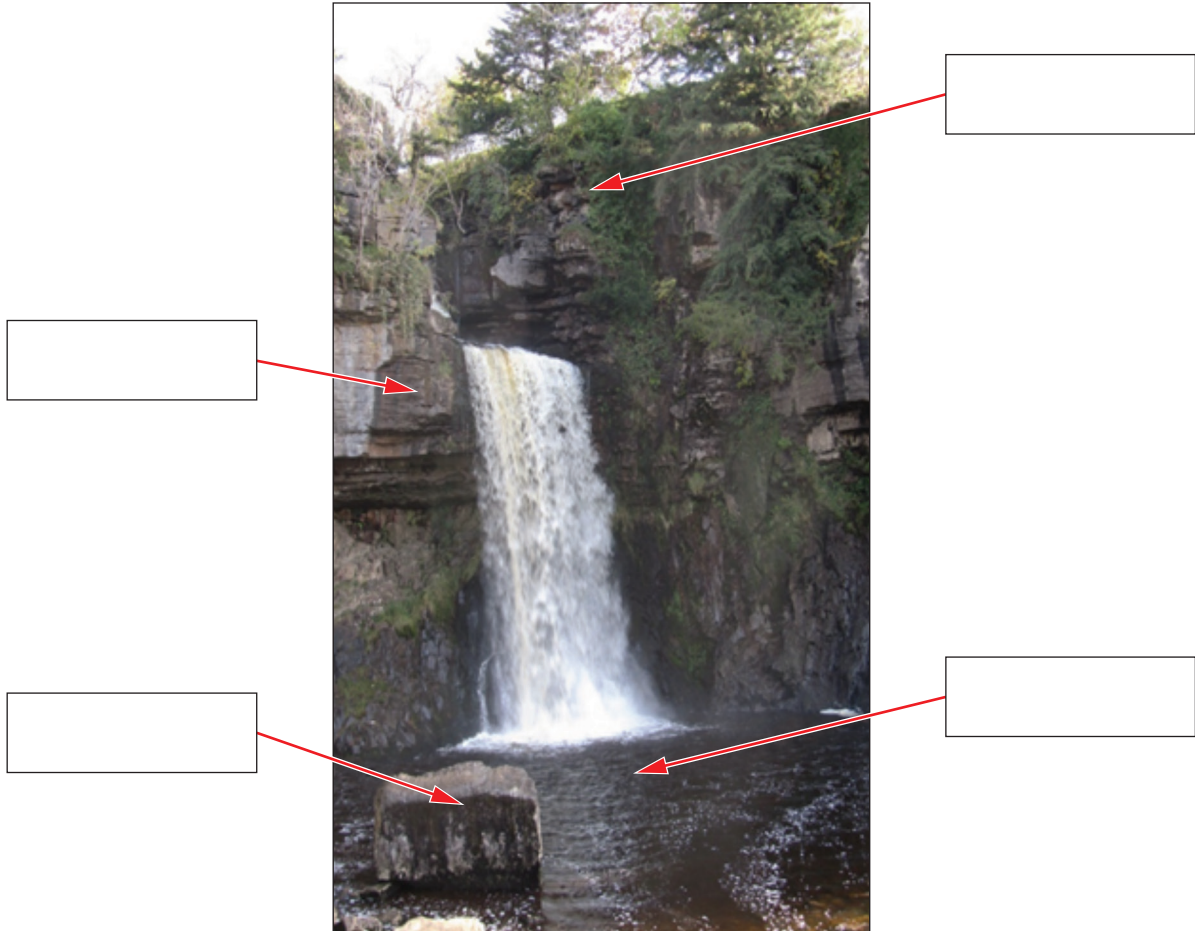
[4]

| Head | Tail |
|------|------|
| A | |
| B | |
| C | |
| D | |



(ii) Study Figure 2.1.

Figure 2.1 – A waterfall in the UK



Label the key features of the waterfall. Choose the correct phrases from the box below. [4]

plunge pool

v-shaped valley

fallen debris

gorge

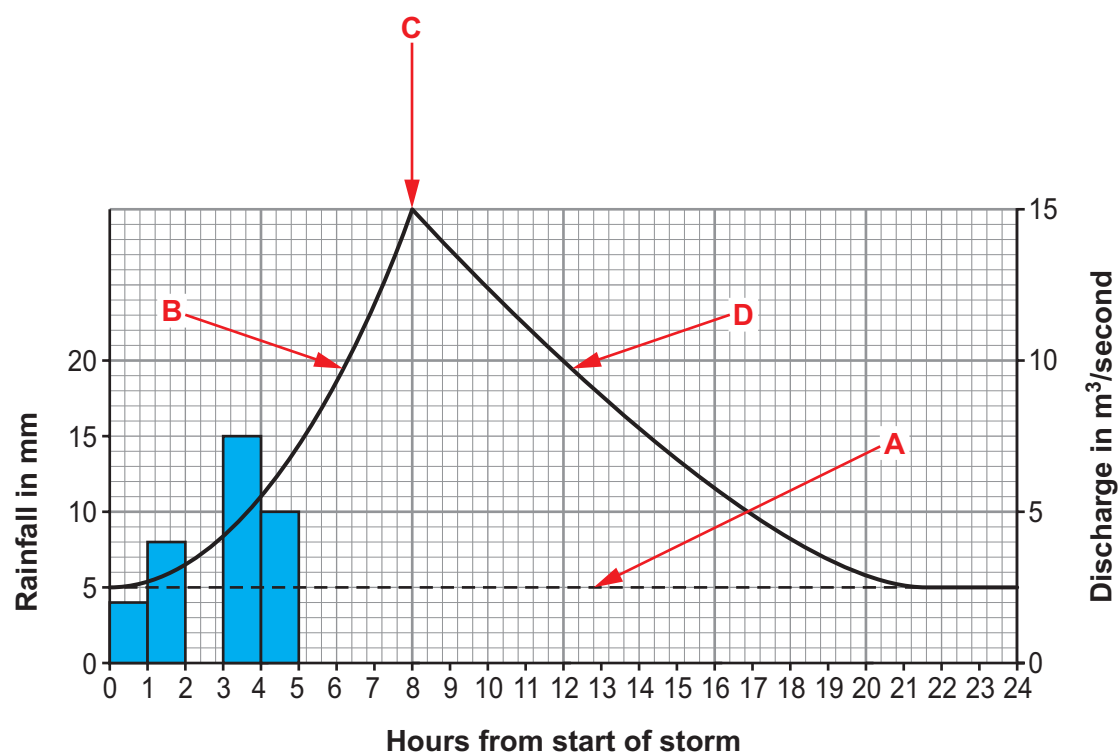
meander

overhanging rock



(b) Study Figure 2.2.

Figure 2.2 – A Storm Hydrograph



(i) Complete Figure 2.2 by adding the following information.

[1]

| Hours from start of storm | Rainfall (mm) |
|---------------------------|---------------|
| 3 | 11 |

(ii) Calculate the total rainfall that fell during the storm shown in the hydrograph.

[2]

Show your working in the space below.

Total rainfall mm



- (iii) Some key features of the storm hydrograph have been labelled on Figure 2.2. Complete the table below by adding the correct letter from Figure 2.2. One has been done for you. One feature in the table is incorrect. [3]

| Feature | Letter from diagram |
|----------------|---------------------|
| Rising limb | |
| Flood level | |
| Falling limb | |
| Peak discharge | C |
| Baseflow | |

- (iv) Calculate the lag time (difference in hours between peak rainfall and peak discharge). [2]
Show your working in the space below.

..... (hours)

- (v) Explain **one** physical factor, other than rainfall, which causes lag times to vary. [2]

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(c) Explain why urbanisation can increase the risk of river flooding.

[6]

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(d) Study Figures 2.3 and 2.4.

Figure 2.3 – News article

Storm Desmond causes chaos in the Lake District (December 2015)

- 5,200 homes flooded.
- 45,000 homes without electricity.
- £500 million estimated cost of damage.
- The Glenridding Hotel in the Lake District was flooded for the third time in less than a month.
- Existing flood defences failed when rivers burst their banks.
- 16.4 million tourists visit the Lake District every year.
- Roads and bridges will take many months to repair.



Figure 2.4 – One opinion about flood management

People must learn to accept that their homes may be flooded every few years – it is just another hazard of life in the 21st century. The Lake District is one of the wettest places in the UK – they should expect floods. Money should not be wasted on flood defences. Storm Desmond was a 1 in 100 year storm event and flood defences may never be needed again.



Evaluate the opinion shown in Figure 2.4.

[8]

Examiner
only

End of Question 2

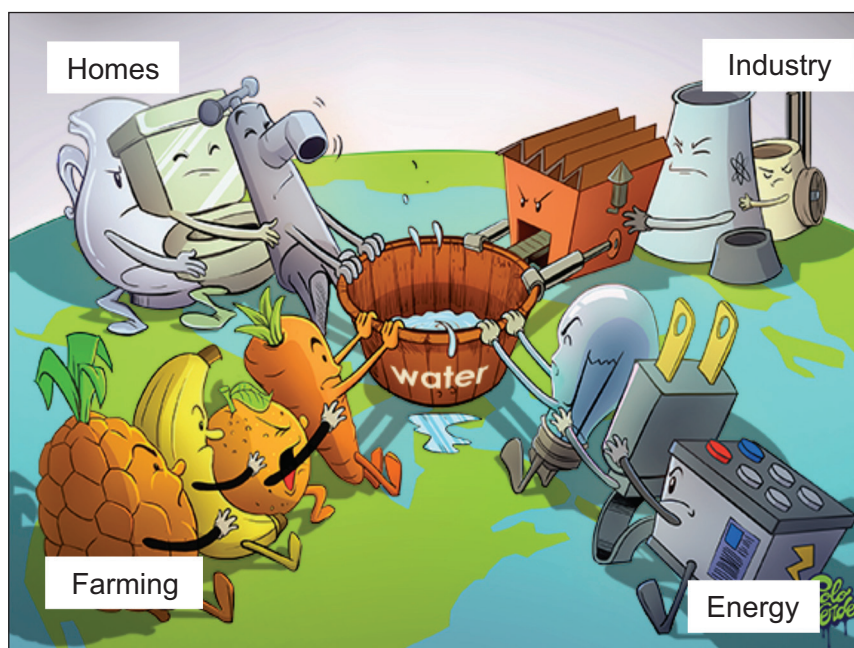


Theme 3: Environmental Challenges

Answer all questions.

3. (a) Study Figure 3.1. It shows some of the many pressures on global water resources.

Figure 3.1 – Pressures on global water resources.



- (i) Complete the sentences that follow, using **four** words or phrases from the text box below. [4]

| | | |
|-------------|-----------|-----------|
| GNI | more | footprint |
| agriculture | supply | HIC |
| less | factories | cycle |

Water is essential for life. We use it in the home, for irrigation in,
and for industry. Generally, the higher a country's the
..... water they use. The amount of water we use and its impact is
known as the water



(ii) Give **one** reason why water security is important to all countries.

[2]

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(iii) For a **named** place, describe how the problem of water supply has been managed.

Name of place

[4]

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(b) Study Figure 3.2.

Figure 3.2 – How water is used in different countries

| Country | Population in millions 2016 | Water use (m ³ /year per person) | % Water use | | |
|---------|-----------------------------------|---|-------------|----------|-------------|
| | | | Homes | Industry | Agriculture |
| Brazil | 195 | 297 | 28 | 17 | 55 |
| Canada | 34 | 1,330 | 20 | 68 | 12 |
| China | 1,362 | 425 | 12 | 24 | 64 |
| Egypt | 84 | 809 | 8 | 6 | 86 |
| India | 1,215 | 627 | 7 | 3 | 90 |
| UK | 62 | 210 | 57 | 33 | 10 |
| USA | 317 | 1,518 | 13 | 46 | 41 |

- (i) Name the **only** country that:
- uses over 700 m³ / year per person **and**
 - less than 10% of water use is in homes.

[1]

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- (ii) Select an appropriate technique from the choice below to represent the data for % water use in Figure 3.2.

| Technique | Tick (✓) |
|------------------|----------|
| Line graph | |
| Bar graph | |
| Pie charts | |
| Triangular graph | |

Explain why your chosen technique is the most appropriate.

[4]

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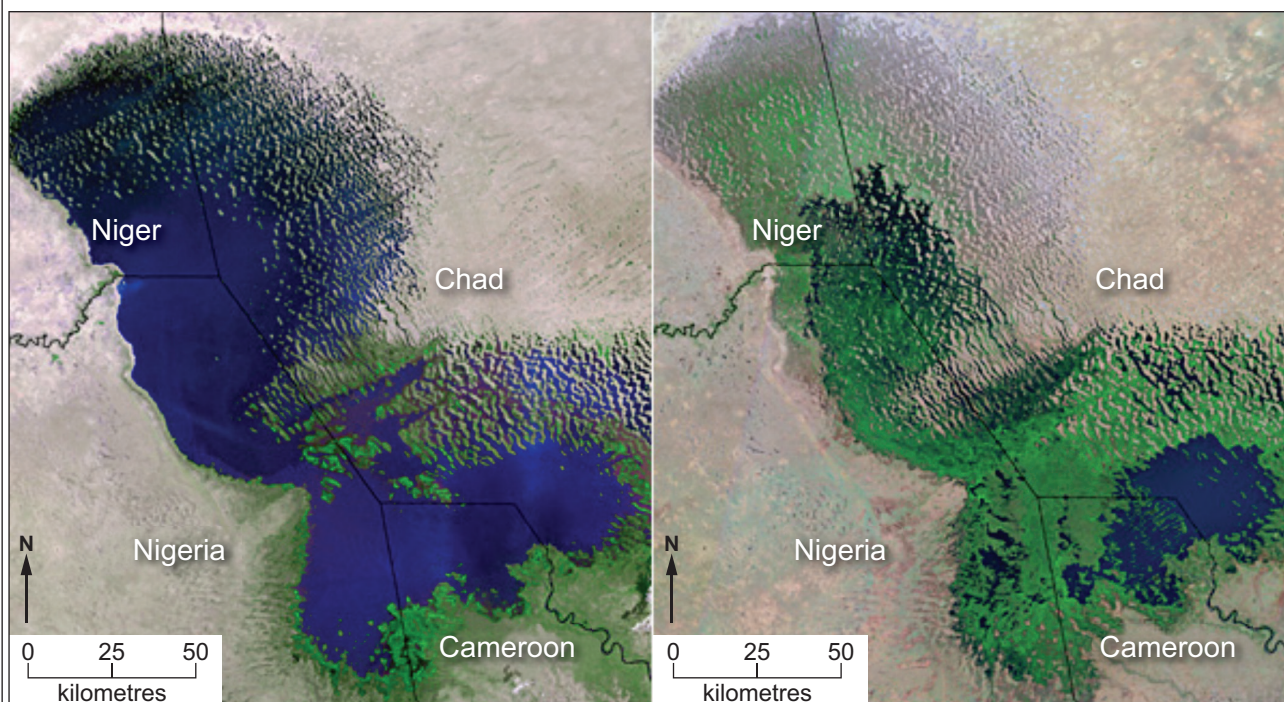
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- (c) Study the two satellite images in Figures 3.3 and 3.4. They show a lake (in blue) which is shrinking due to evaporation and increasing demand for water.

Figure 3.3 – Lake Chad in 1972

Figure 3.4 – Lake Chad in 2007



- (i) Describe how Lake Chad has changed. Use measurements in your answer. [3]

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- (ii) Explain why over-abstraction of water causes problems for both people and the environment. [6]

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(d) Many ecosystems are under threat from human activity. Study Figures 3.5, 3.6 and 3.7.

Figure 3.5 – The North Peruvian Oil Pipeline

- The North Peruvian Oil Pipeline takes oil from the Amazon rainforest to the Pacific Coast. It is 11,000 km long.
- Peru produces over 58,000 barrels of oil a day (worth about \$US3 million).
- The rainforest in Peru has an important biodiversity.
- Since 2011 there have been over 23 leaks from this pipeline causing pollution.
- Floods spread the pollution into the rainforest.
- Scientists say plant and animal life will take years to recover from the pollution.
- Indigenous people live in the forest. More than 8,000 people have reported sickness and skin rashes from pollution.
- The nearby country of Ecuador wants the pipeline to be extended so they can use it.

Figure 3.6 – The oil pipeline in the rainforest



A group of workers in a mangrove forest, wearing hard hats and gloves, are engaged in a cleanup or restoration project. They are using tools to clear debris and vegetation from a waterway, with a large pile of cut branches and roots in the foreground.

Should the pipeline be re-opened? Consider the possible social, environmental and economic impacts of your decision. [8]



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End of Question 3

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